

**REMARKS**

Claims 1 - 10, 12, 13, and 17 - 42 are pending in the present application. Claims 11 and 14 - 16 were previously canceled, and claims 35 - 42 are newly added.

In the Office Action, claims 1 - 10, 12, 13 and 17 - 34 are rejected on the basis of the disclosures of one or more of the following patents:

- (1) US 4,730,313 to Stephenson et al. (hereinafter "the Stephenson et al. patent");
- (2) US 5,184,345 to Sahni (hereinafter "the Sahni patent");
- (3) US 5,721,729 to Klingman (hereinafter "the Klingman patent");
- (4) US 5,784,558 to Emerson et al. (hereinafter "the Emerson et al. patent"); and
- (5) US 5,533,007 to Orita et al. (hereinafter "the Orita et al patent").

Of the rejected claims, seven are independent, namely claims 1, 4 - 7, 33 and 34. Applicants amended the independent claims to clarify a feature that is neither expressly described nor suggested by any of the cited references.

In section 3 of the Office Action, claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by the Stephenson et al. patent.

Claim 1 provides a method of monitoring an ISDN link. The method includes, *inter alia*, monitoring an ISDN link using a passive probe connected to said ISDN link via a network tap at a first location to monitor subscriber signalling messages on an ISDN D channel to derive first monitoring data.

FIG. 2 of the present application shows examples of local loop and core network probe measurements (page 2, lines 21 - 22). An example of a monitoring system architecture employing the method is illustrated in FIG. 3, and described at page 3, lines 15 et seq. A monitoring system such as Hewlett-Packard's access7 system can be used, and this monitoring system can be extended with a probe that monitors a trunk (page 9, lines 33 - 36). Such a probe is connected to the trunk (page 9, line 38). Use of a probe to monitor a link via a tap is described,

for example, in a passage at page 10, line 38 - page 11, line 6. Thus, a network probe is connected to a trunk, i.e., between network elements.

The Stephenson et al. patent describes a method for providing B channel diagnostics in an ISDN (Abstract). The method includes “monitoring error performance of an ISDN D channel and then comparing the D channel error performance with a predetermined error performance criterion as a measure of B channel performance” (col. 2, lines 28 - 33). FIG. 2 of the Stephenson et al. patent shows a block diagram of a transmission and control portion that performs error monitoring and testing (col. 2, lines 63 – 66). Applicants have not found any disclosure in the Stephenson et al. patent that connections between the test logic and other components of FIG. 2 are network taps. To the contrary, the Stephenson et al. patent, at col. 5, lines 51 – 56, states:

Therefore, the present invention, is only likely to provide an accurate indication of the error performance of B channels if the errors are occurring somewhere within the access circuit or associated equipment as opposed to those errors occurring in the integrated network. [Emphasis added]

Thus, in the Stephenson et al. patent, if a tap is even employed, it is **internal to a network element**, e.g., a transmission and control interface. Consequently, the Stephenson et al. patent neither describes nor suggests monitoring an ISDN link using a passive probe connected to said ISDN link via **a network tap**, as recited in claim 1. Thus, claim 1 is both novel and non-obvious over the Stephenson et al. patent.

Applicants respectfully request reconsideration and withdrawal of the section 102(b) rejection of claim 1.

In section 4 of the Office Action, claims 33 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by the Sahni patent. Claims 33 and 34 are independent claims, and both include a recital that is neither described nor suggested by the Sahni patent.

Independent claim 33 provides a method of assembling service detail records for transactions carried over an ISDN link. The method includes, *inter alia*, monitoring, via a network tap, subscriber signalling messages on an ISDN D channel in an ISDN link.

Independent claim 34 provides for an apparatus for assembling service detail records for transactions carried over an ISDN link. The apparatus includes, *inter alia*, a network tap for monitoring subscriber signalling messages on an ISDN D channel in an ISDN link.

The Sahni patent discloses a communication system (FIG. 1) that includes a switching network 200 having a digital switch 220 (col. 4, lines 11 – 15). On page 3 of the Office Action, the Examiner suggests that the switch inherently has a tap. Thus, the Examiner appears to recognise that the Sahni patent does not expressly describe a tap. Nevertheless, even if one were to assume that the switch of the Sahni patent inherently has a tap, as suggested by the Examiner, such an alleged tap would be **an integral part of the switch**, and is therefore, **not a network tap**, as recited in claims 33 and 34. Thus, the Sahni patent does not anticipate either of claims 33 or 34.

Applicants respectfully request reconsideration and withdrawal of the section 102(b) rejection of claims 33 and 34.

In section 6 of the Office Action, claims 7 – 10 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by the Klingman patent. Of this set of claims, one is independent, namely claim 7.

Claim 7 provides for a method of monitoring a telecommunications system having transmission channels and an associated signalling channel. The method includes, *inter alia*, monitoring, via a network tap at a first location, signalling messages on the signalling channel to derive first monitoring data.

The Klingman patent discloses a call processing system that includes an ISDN controller 54 (FIG. 2, col. 3, lines 58 – 65). On page 4 of the Office Action, the Examiner suggests that the controller inherently has a tap. Thus, the Examiner appears to recognise that the Klingman patent

does not expressly describe a tap. Nevertheless, even if one were to assume that the controller of the Klingman patent inherently has a tap, as suggested by the Examiner, such an alleged tap would be **an integral part of the controller**, and is therefore, **not a network tap**, as recited in claim 7. Thus, the Klingman patent does not anticipate claim 7.

Claims 8 – 10 and 17 depend from claim 7. By virtue of this dependence, claims 8 – 10 and 17 are also novel over the Klingman patent.

Applicants respectfully request reconsideration and withdrawal of the section 102(e) rejection of claims 7 – 10 and 17.

In section 8 of the Office Action, claims 5, 22, 27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Stephenson et al. patent. Of this set of claims, one is independent, namely claim 5.

Claim 5 provides for an apparatus for monitoring an ISDN link. The apparatus includes, *inter alia*, first equipment for monitoring an ISDN link using a passive probe connected to the ISDN link via a network tap.

As explained above in support of claim 1, in the Stephenson et al. patent, if a tap is even employed, it is **internal to a network element**. Consequently, the Stephenson et al. patent neither describes nor suggests first equipment for monitoring an ISDN link using a passive probe connected to the ISDN link via **a network tap**, as recited in claim 5. Thus, claim 5 is patentable over the Stephenson et al. patent.

Claims 22 and 31 depend from claim 1, and claim 27 depends from claim 5. By virtue of these dependencies, claims 22, 27 and 31 are also patentable over the Stephenson et al. patent.

Applicants respectfully request reconsideration and withdrawal of the section 103(a) rejection of claims 5, 22, 27 and 31.

In section 9 of the Office Action, claims 12, 13, 19, 23, 24, 28 and 29 are rejected under 35 U.S.C. 103(a)

Claims 12, 13, 23 and 24 depend from claim 1, and claims 19, 28 and 29 depend from claim 5. Above, Applicants explained that the Stephenson et al. patent and the Klingman patent **each fail to disclose a network tap**. Thus, the Stephenson et al. and Klingman patents, whether considered independently or in combination with one another, do not disclose or suggest either of (a) monitoring an ISDN link using a passive probe connected to said ISDN link via **a network tap**, as recited in claim 1, or (b) first equipment for monitoring an ISDN link using a passive probe connected to the ISDN link via **a network tap**, as recited in claim 5. Accordingly, claims 1 and 5 are patentable over the cited combination of the Stephenson et al. and Klingman patents. Claims 2, 13, 19, 23, 24, 28 and 29, by virtue of their dependencies, are also patentable over the cited combination of the Stephenson et al. and Klingman patents.

Applicants respectfully request reconsideration and withdrawal of the section 103(a) rejection of claims 2, 13, 19, 23, 24, 28 and 29.

In section 10 of the Office Action, claims 2, 3 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Stephenson et al. patent in view of the Emerson et al. patent.

Claims 2, 3 and 25 each depend from claim 1. As explained above, the Stephenson et al. patent neither describes nor suggests monitoring an ISDN link using a passive probe connected to said ISDN link via a network tap, as recited in claim 1. Applicants have not found that the Emerson et al. patent makes up for this deficiency. Accordingly, Applicants submit that claim 1 is patentable over the cited combination of the Stephenson et al. and Emerson et al. patents. Claims 2, 3 and 25, by virtue of their dependence on claim 1, are also patentable over the cited combination of the Stephenson et al. and Emerson et al. patents.

Applicants respectfully request reconsideration and withdrawal of the section 103(a) rejection of claims 2, 3 and 25.

In section 11 of the Office Action, claims 4, 6, 18, 20, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Orita et al. patent in view of the Stephenson patent. Of this set of claims, two are independent, namely claims 4 and 6.

Claim 4 provides for a method of monitoring an ISDN link. The method includes, *inter alia*, monitoring an ISDN link using a passive probe connected to the ISDN link via a network tap.

Claim 6 provides for an apparatus for monitoring an ISDN link. The apparatus includes, *inter alia*, first equipment for monitoring an ISDN link using a passive probe connected to the ISDN link via a network tap.

The Orita et al. patent describes an ISDN line circuit channel monitor system. A call processor accommodating network (CPR-NW) 24 connects the time slots of a line circuit network (LC-NW) 16 and an integrated services digital network (ISDN) 26 to monitor equipment 28 via a line monitor equipment interfacier (LME) 27 (col. 3, lines 61 - 64). On page 10 of the Office Action, the Examiner suggests that the ISDN monitor is connected to the ISDN via a tap. However, whereas the Orita et al. patent **expressly describes monitor equipment 28 as being connected to ISDN 26 via CPR-NW 24 and LME 27**, the Orita et al. patent does not describe or suggest either of (a) monitoring an ISDN link using a passive probe connected to the ISDN link via **a network tap**, as recited in claim 4, or (b) first equipment for monitoring an ISDN link using a passive probe connected to the ISDN link via **a network tap**, as recited in claim 6.

Also, as explained above in support of claim 1, in the Stephenson et al. patent, if a tap is even employed, it is **internal to a network element**. Consequently, the Stephenson et al. patent also neither describes nor suggests either of (a) monitoring an ISDN link using a passive probe connected to the ISDN link via **a network tap**, as recited in claim 4, or (b) first equipment for monitoring an ISDN link using a passive probe connected to the ISDN link via **a network tap**, as recited in claim 6.

Hence, Applicants respectfully submit that both of claims 4 and 6 are patentable over the Orita et al. and Stephenson et al. patents. Claims 18 and 26 depend from claim 4, and claims 20

and 30 depend from claim 6. By virtue of these dependencies, claims 18, 20, 26 and 30 are also patentable over the cited combination of the Orita et al. and Stephenson et al. patents.

Applicants respectfully request reconsideration and withdrawal of the section 103(a) rejection of claims 4, 6, 18, 20, 26 and 30.

In section 12 of the Office Action, claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Klingman patent. Claim 32 depends from claim 7. Above, in support of claim 7, Applicants explained that even if one were to assume that the controller of the Klingman patent inherently has a tap, such an alleged tap would be **an integral part of the controller**, and is therefore, **not a network tap**, as recited in claim 7. Thus, claim 7 is both novel and non-obvious over the Klingman patent. Claim 12, by virtue of its dependence on claim 7 is also patentable over the Klingman patent.

Applicants respectfully request reconsideration and withdrawal of the section 103(a) rejection of claim 32.

In section 13 of the Office Action, claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Klingman patent in view of the Sahni patent. Claim 21 depends from claim 7. Above, in support of claim 7, Applicants explained that even if one were to assume that the controller of the Klingman patent inherently has a tap, such an alleged tap would be **an integral part of the controller**, and is therefore, **not a network tap**, as recited in claim 7. Applicants also explained, in support of claims 33 and 34, that even if one were to assume that the switch of the Sahni patent inherently has a tap, such an alleged tap would be **an integral part of the switch**. Consequently, the Sahni patent does not disclose **a network tap**, as recited in claim 7. Thus, claim 7 is patentable over both of the Klingman and Sahni patents. By virtue of its dependence on claim 7, claim 21 is also patentable over the cited combination of the Klingman and Sahni patents.

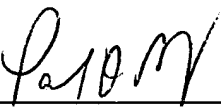
Applicants respectfully request reconsideration and withdrawal of the section 103(a) rejection of claim 21.

Applicants added claims 35 - 42 to even further provide the claim coverage that Applicants appear to deserve based on the prior art that was cited by the Examiner. A favorable consideration that also results in the allowance of claims 35 - 42 is earnestly solicited.

In view of the foregoing, Applicants respectfully submit that all claims presented in this application patentably distinguish over the prior art. Accordingly, Applicants respectfully request favorable consideration and that this application be passed to allowance.

Respectfully submitted,

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